Submission to **Independent Review of the delivery of the Inland Rail Program**

Addressing:

- Theme 3 (The processes for the selection and refinement of the Inland Rail route …)
- Theme 4 (The effectiveness of ARTC's community and stakeholder engagement processes)

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[redacted]

This submission has my permission to be made public.

Relevant personal information:

(a) I am a Certified Professional Soil Scientist with over 50 years experience, and have worked for over 25 years as a consultant to a wide range of mining, infrastructure, and construction projects across Australia and internationally. I have extensive experience with involvement in planning and delivery of large projects, and some experience with community engagement. As a research scientist, I have published approximately 60 papers in refereed scientific journals, and am one of the authors of the current leading practice guideline on land rehabilitation for mining in Australia. I am regarded as one of Australia's leading soil erosion researchers and consultants.

(b) My specific areas of expertise include:
- assessment of soil erodibility;
- soil erosion measurement, modelling, and control; and
- rehabilitation of disturbed lands.

(c) The current Inland Rail route is proposed to cross my farming property.

(d) I have been a member of the Inner Darling Downs Community Consultative Committee since its inception approximately 4 years ago – as a representative of the local LandCare organisation.

On the basis of both technical background, experience, and local involvement outlined above, I am uniquely well-qualified to comment on the Inland Rail Project.

Theme 3: **The processes for the selection and refinement of the Inland Rail route and whether these processes are fit-for-purpose, including consideration of benefits and impacts.**

Introduction

In comparison to my experience with large companies such as Rio Tinto, South32 and others, the process of route selection in the B2G (Border to Gowrie) section of the project has been **rudimentary, flawed, and ill-informed**. It has been driven by political inputs and delivered by external consultants with no knowledge of the region and no willingness to listen to the local population.

In consequence, it has been subject to continuing strong opposition by the local community, who oppose the specific plan even though supporting the general Inland Rail concept in principle.

What would/should be expected?

In the mining industry (for example), project planning would typically progress through at least 3 stages: **Order of Magnitude**, **Preliminary Feasibility** and **Detailed Feasibility**.

Order of Magnitude studies are typically accurate to within 40-50%, and generally decide (a) whether to proceed at all, and (b) what additional detailed studies are required. They may identify major areas of concern or challenges that need to be resolved.

Preliminary Feasibility studies are typically accurate to within 20-30%, and include more detailed investigations. Again, they support decisions on whether to proceed at all, and identify areas that may need more attention. In my experience, at this stage, there can be involvement of a wide range of technical experts, exhaustive review of all possible alternative strategies or approaches, and development of a limited number of strategies for quite detailed evaluation. In the mining situation, input from stakeholders is critical at this phase.

Detailed Feasibility studies are accurate to within 10-15% and can cost between 0.5 – 1.5% of the total estimated project cost. Detailed feasibility studies require a significant amount of formal engineering and scientific work.

What was done?

All that has been done to determine the B2G route is – effectively - an Order of Magnitude Study: the *AECOM Corridor Options Report Inland Rail – Yelarbon to Gowrie, Australian Rail Track corporation Limited 21 April 2017.* That study was predicated on a political decision that the rail line must pass close to Wellcamp Airport, and considered only 4 potential routes. The selection of potential routes did not invite or consider any inputs from local landholders or land management groups, with the result that a range of quite important issues were ignored. Inputs to the decision making process were virtually "back of envelope".

As an example of the "she'll be right" level of data used, the 2017 AECOM study considered that the crossing of the Condamine floodplain would require 1.8 km of viaduct and a further 1.54km of viaduct for the rest of the Wellcamp-Charlton route. (Table 43 in that document). In contrast, by 2021 the failed B2G EIS proposed **6.03km of viaduct** to cross the Condamine floodplain alone, and that distance is still considered by local landholders and experienced soil conservationists to be unacceptably low (based on generations and decades of experience with managing that floodplain). Viaducts are particularly costly, and the large discrepancy between

the two reports illustrates that the real cost of crossing the highly erodible soil of the Condamine floodplain was grossly underestimated in the 2017 study, to a degree that may have affected the route decision made.

That underestimate represents a significant failure to engage with and listen to the local community, and a willingness to use inadequate data to justify a preferred option. The proposed Condamine floodplain crossing remains controversial, subject to strong local and technical opposition It is a poor planning decision that has strongly impacted on project delivery.

Alternatives

Subsequently, there has been an official assessment of a "Forestry Route" option. The assessment used data prepared by ARTC, failed to involve local groups and stakeholders in the assessment, and failed to consider a number of potential benefits from that alternative route. I would refer the reader to the submissions on this topic by Kevin Loveday and others.

Consequently, the decision that the alternative route was not viable has been widely viewed (with some justification) as being biased and not credible.

It should also be noted that the alternative route crosses floodplain that is much more suitable for the viaduct, embankment/culvert structure favoured by ARTC, as the degree of flood expansion across the floodplain is much less in the area closer to Cecil Plains. In contrast, the Millmerran/Brookstead route chosen actually impacts the area of Condamine floodplain where flood flows spread most widely.

Risks with current route

The proposed method for crossing the Condamine floodplain remains of huge concern. It may represent "established engineering methods for floodplains", as noted by the recent independent hydrology review, but it is not consistent with well-established principles for managing floodplains on the Darling Downs. The use of embankments and culverts which concentrate flood flows is considered worst practice, for reasons illustrated in the photographs appended to this document. The risk of extensive gullying and damage both to high value agricultural land and to the line itself is extremely and unacceptably high.

It should be noted that the independent hydrology review did recommend geomorphological assessment, which flags that that group is concerned by the potential for gully erosion to be triggered by culverts.

Closing comment

There are many problems with the currently proposed B2G route. This brief comment has only focussed on the process applied and used the floodplain crossing as an example of its failings.

There has been a chorus of media statements suggesting that the quality of the design no longer matters – that so much time and money has been spent on the current design that it is not acceptable to change it, irrespective of how bad it may be.

But if this project is to be a major part of the country's transport for the next 50 – 100 years, then there is no excuse for poor planning and for delivery of a second-best system. **The nation deserves better.**

Theme 4: The effectiveness of ARTC's community and stakeholder engagement processes, and opportunities for improvement, including ARTC's approach to addressing community concerns.

Overview

Over the last 4 years, I have watched the Inland Rail Project's communication with the local community and affected landholders evolve from being totally inept to the point of making some effort but really never understanding how to engage. It has been consistently clear that the ARTC view of community engagement means telling the community things (those things they wish to share ….), but definitely does not extend to listening to the community.

Attitudes and behaviour noticeably vary depending on roles within ARTC. In particular, project staff in technical roles have never learnt to respect or value the knowledge present in the local community. Equally, there have been opportunities for consultation and even cooperation that ARTC has not accepted.

Much of the evolution in quality of communication has been driven by the committees and individuals, who have regularly challenged ARTC actions, behaviour and attitudes. Over time, ARTC staff (particularly those in regular contact with the community) have learnt to be more open and honest, and less inclined to try to mislead. But learning that courtesy and respect involve being considerate, informative and inclusive has clearly been difficult for those in more technical and managerial roles.

It has been frustrating to hear complaints that ARTC staff are being subjected to rude behaviour from the community when we know that such behaviour is often triggered by a lack of courtesy and consideration on the part of ARTC staff. It seems to be forgotten that people in farming communities largely do not have the experience with speaking in meetings and engaging in public debate that professional people do, and consequently their responses may on occasions be somewhat less than polished.

Some examples

In the early months of the project, farmers had unmarked ARTC vehicles driving onto their properties without permission or notice. And this at a time when thefts of equipment from farm sheds was a major local problem!

That was raised at a Community Consultative Committee (CCC) meeting and the ARTC folk were vaguely puzzled and suggested they might think about it. After stern words and a personal conversation with the Queensland manager, ARTC then made efforts to ensure that all project vehicles were clearly badged. (That requirement is elementary for construction projects and minesites and should have applied from day 1.)

Meetings with consultants working on preparation of the initial B2G EIS were commonly unproductive and could become confrontational when technically experienced people such as myself in the audience openly objected to the poor quality of presentations. Typical issues included use of technical jargon with the intent to daunt and confuse lay people, lazy powerpoint slides presenting large and complex tables taken directly from reports, inadequate figures and

legends that were impossible to read, and presentation of data at specific meetings that was not relevant to that area. Again, consultants showed no interest in engaging with the local communities and gave the strong impression that they believed that the EIS was a "done deal" and that they merely had to submit something.

The Pittsworth LandCare group has had involvement in koala habitat plantings and monitoring for years. They were appalled to see the initial EIS claim that there were virtually no koalas in the area, and were able to refute that with maps of approximately 200 sightings. In preparation for the revised EIS, ARTC has now taken some interest in koalas, and, earlier this year, brought their consultants to a LandCare meeting. Their request was "we want your data to add to ours". (Apparently they had recently done a koala survey in the area, but had not thought to discuss the work prior to its execution with the local folk who know where koala populations are.) When asked if they would share their data, the ARTC response was vague, and basically "no". Suggestions that ARTC would share details of any other koala studies that they carry out with the LandCare group have similarly been refused. Not surprisingly, there has been no data shared from the LandCare group, and opportunities to greatly enhance koala studies for the region have been missed.

Examples could go on and on.

Currently, I believe that a significant number of the landholders on the floodplain are unwilling to meet with ARTC to discuss the latest flood modelling. This reflects their lack of respect for the project and its delivery.

Where to from here for community engagement?

That is a difficult question. Within the community, there is widespread distrust of ARTC, and a general view that the current route is a poor decision driven by politicians and vested interests. The community expects the project to create significant impacts from noise, erosion, flooding, fragmentation of properties, traffic delays, and impacts on wildlife such as koalas. There have already been significant impacts on the mental well-being of many of those who are directly affected (in the proposed route).

People still attend meetings, as they want to know what is happening. But that does not mean that they are in any way supportive of the current project.

To achieve significant positive change in the project's interaction with the community will be very difficult. There is a legacy of dysfunction to be overcome. It would require a concerted effort, and a considerable change in approach by ARTC staff, who at some levels seem to feel that their best option at this stage is to simply force the construction through, irrespective of community opinion.

Examples of gullies formed by culverts on cracking clay soil floodplains of the Darling Downs

Figure 1: Flood flow passing through a failed culvert in old rail line (property of B. Kelly, Pampas). Flow direction right to left.

Figure 2: Scour in, and downstream of, the failed culvert, and visible erosion of land adjoining the upstream side of the culvert in the drawdown area.

Figure 3: Two gullies formed downstream of road crossings, Linthorpe Creek, Toowoomba – Cecil Plains Road.

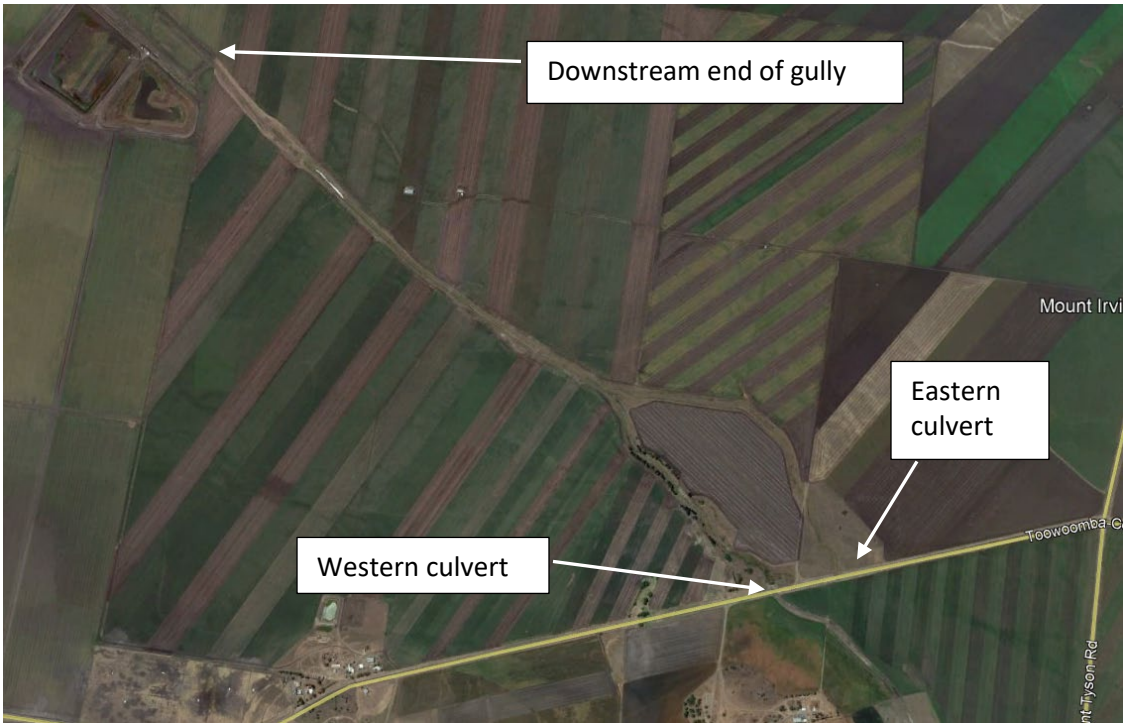

Figure 4: Current landscape, with the two gullies coalescing downstream and now extending for a distance of 3.14 kilometres